

P A T E N T

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re: Gregory S. Kelley Confirmation No.: 8007  
Serial No.: 10/820,659 Examiner: Christopher Koharski  
Filing Date: April 8, 2004 Group Art Unit: 3763  
Docket No.: 1001.1755101 Customer No.: 28075  
For: MEDICAL DEVICES INCLUDING AERATED ADHESIVE BONDS AND  
METHODS OF FORMING THE SAME

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P.O. Box 1450  
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**REPLY BRIEF UNDER 37 C.F.R. § 41.41**

**CERTIFICATE FOR ELECTRONIC TRANSMISSION:**

The undersigned hereby certifies that this paper or papers, as described herein, are being electronically transmitted to the U.S. Patent and Trademark Office on this 23rd day of January 2009.

By Kathleen L. Boekley  
Kathleen L. Boekley

Dear Sir:

Pursuant to 37 C.F.R. § 41.41, Appellant hereby submits this Reply Brief in response to the Supplemental Examiner's Answer mailed on November 26, 2008. Permission is hereby granted to charge or credit Deposit Account No. 50-0413 for any errors in fee calculation.

The Examiner has provided a new reference (Cyprien) asserted to disclose basic fundamental characteristics of adhesives such as having air voids. The Cyprien reference does not teach what the Examiner asserts. In the Examiner's Answer mailed June 20, 2008, the Examiner asserts:

Examiner asserts that Deniega et al. discloses a biocompatible medical glue adhesive that will inherently (unless assembled in a completed vacuum, which is not disclosed in Deniega et al.) have some air voids present during the manufacture and assembly of the two components (280, 282) and therefore meets the broadest reasonable definition of an aerated adhesive.

Emphasis added; see page 4, lines 11-15. It appears the Examiner is asserting that Cyprien discloses that an inherent property of adhesives is that they have air voids. Appellant submits that the Cyprien reference does not provide a teaching that adhesives necessarily contain voids. Cyprien teaches, “[i]ndeed, tiny air bubbles can be trapped at the interface during the contact (Fig. 1) and generate suction effects upon traction”, emphasis added, see page 1123, second column, lines 19-21. In the description of Fig. 1, Cyprien teaches:

When a rough solid surface (hilly landscape) is brought into contact with an adhesive material, the degree of intimacy of the contact depends on the softness of the adhesive material. In particular, if the adhesive is purely elastic and has a large modulus, the contact will be restricted to the top of the hills, resulting in small, isolated contact regions. Conversely, if the adhesive is soft enough, the contact will extend from the summits and reach the passes of the landscape and beyond, thus trapping isolated air bubbles in the valleys.

Emphasis added; see page 1124. Cyprien teaches that if a solid surface is rough, and the adhesive is soft enough, then air bubbles are trapped. Cyprien does not teach that a biocompatible medical glue inherently, and thus necessarily, will have air voids, unless the assembly is conducted under a complete vacuum, as asserted by the Examiner. Cyprien teaches that under certain circumstances (a rough surface and sufficiently soft adhesive), air bubbles may be trapped in an adhesive. Appellant submits that this teaching does not support the Examiner’s conclusion that a “basic fundamental characteristic of adhesives” is that they inherently contain air voids. Appellant notes that MPEP 2112 IV states:

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).

(Emphasis added). Appellant submits that the claimed aerated adhesive layer is not necessarily present in Deniega, even with the additional teachings of Cyprien. The Examiner is asserting that any biocompatible medical adhesive will inherently have some air voids present within the layer during manufacture and assembly. As discussed above, such an assertion is unsupported by Cyprien or Deniega. At best, the teachings of Cyprien show that when a sufficiently soft adhesive is applied to a rough solid surface, air bubbles may be trapped. Cyprien teaches that “the degree of intimacy of the contact depends on the softness of the adhesive material.” See the above

description of Fig. 1. Appellant submits that Cyprien clearly teaches that the type of contact depends on the surface roughness of the solid object and the softness of the adhesive. This dependency on two variables cannot be seen to be a fundamental characteristic of all adhesives, as asserted by the Examiner. The teachings of Cyprien thus cannot be seen to support the assertion that any biocompatible medical adhesive will inherently, and necessarily have trapped air voids.

Further, Deniega does not teach a rough solid surface or a soft adhesive, but rather to provide a generic teaching of a medical adhesive:

Preferably, a suitable type of medical adhesive is applied between the overlapping surfaces of the tube 282 and the tubular section 280, to hold the tubes 280, 282 together. It is contemplated that the adhesive is of the biocompatible variety, such as medical "glue" that is used for closing wounds.

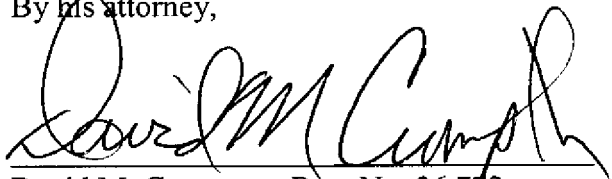
Emphasis added; see paragraph 108. Deniega does not provide any further discussion of suitable adhesives, does not describe the surfaces, and does not teach an aerated adhesive layer, as is recited in the claims. Deniega thus fails to teach a rough surface and sufficiently soft adhesive, such that one of ordinary skill in the art would assume, based on Cyprien, that air bubbles would be trapped in the adhesive. Deniega cannot be seen to anticipate the claims. It appears the Examiner may be considering that the "suitable", "biocompatatible" adhesive of Deniega could be modified to be aerated, which is not a proper basis for an anticipation rejection.

For the reasons stated above and provided in the Appeal Brief filed April 7, 2008 and the Reply Brief filed August 20, 2008, the rejections of claims 1-18 under 35 U.S.C. §§ 102(e) and 103(a) should be reversed.

Respectfully submitted,

Gregory S. Kelley

By his attorney,



David M. Crompton, Reg. No. 36,772  
CROMPTON, SEAGER & TUFTE, LLC  
1221 Nicollet Avenue, Suite 800  
Minneapolis, Minnesota 55403-2420  
Telephone: (612) 677-9050  
Facsimile: (612) 359-9349

Date: \_\_\_\_\_

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